Workshop for a 19th Century Climate Catalogue 4/02/02

Date and times: June 1 - June 2, 2002
Location: National Geophysical Data Center, NOAA, Boulder

Purpose:
To bring together expertise from the paleo, instrumental, historical and modeling climate communities to formulate a plan for synthesizing available climate and proxy climate data into a spatially and temporally detailed North American (US) 19th century climate catalogue (consult white paper for rationale).

Product:
A collaborative research proposal (or set of proposals) involving partnerships between scientists in different research institutes and government agencies, and other scholars, that address agreed-upon issues and tasks related to building a 19th century climate catalogue to extend the current climate database which starts in 1895. An example of a potential final product would be the extension of the US climate division records to the beginning of the 19th century (or as far back as feasible).

The Workshop:
The workshop will target the critical issues to be addressed in order for the group to achieve the goal of building a 19th century climate data catalogue. A set of strategies—in essence, a "roadmap"—will be developed to guide group progress in resolving these issues. Researchers or groups of researchers will be identified to take on particular issues and detail strategies for the collaborative proposal. Actual proposal writing will take place in the weeks that follow the workshop (a potential target date is the CCDD deadline, July 1, 2002 - I know their LIOs are now due May 1 so I'll see if there is a way around this; hopefully Chris Miller will be at the workshop).

Some of the issues to be discussed at the workshop include:

1. How representative is the instrumental climate network of 1870 (i.e. how good a job does it do in estimating 20th century climate)?
2. What is the role of historical data? Is it a bridge between instrumental and paleodata, or is it best used to augment (extreme events) and validate the paleorecords?
3. What are the problems and issues related to the blending of paleo and instrumental data? Is this possible? What are different approaches to exploring this idea?

The workshop will also discuss some practical aspects that may facilitate research and ensure some coherency in the project. Topics for discussion include:

1. A common dataset or sets of data that may be used to test different approaches to blending different types of data.
2. The usefulness of target regions for pilot studies
3. The usefulness of identifying specific events or periods of interest within the 19th century for preliminary analyses.

4. Data needs in terms of published but not readily available data, unpublished but available data, or data not yet collected (i.e., specific historical records, updated tree-ring collections).

Issues related to the actual building of the data catalogue will be discussed. Some questions to consider in this regard include:

1. What outputs are desirable in terms of the key variables (temperature and precipitation) and other ancillary data sets?
2. How to facilitate the distributed efforts for finding, processing and incorporating the data so that the goal of reconstructing the climate of the 19th century is achieved?
3. What should be the resolution of the output data sets (issues dealing with temporal and spatial resolution), formulation the analysis tools and methodologies, and issues related to the archiving of the resulting data sets.

Potential participants:

Ray Bradley (UMASS)
Mike Mann (UVA)
Ed Cook (LDEO)
Dave Meko (U of AZ)
Tom Swetnam (U of AZ)
Alexey Kaplan (Columbia University)
Malcolm Hughes (U of AZ)
Caspar Ammann (NCAR, UMASS)
Greg Zielinski (U. Maine)
Cary Mock (U of S. Carolina)
Mike Chenoweth (independent)
David Stahle (U of Arkansas)
Ann Waple (NCDC)
others from NCDC - Dave Easterling?
Jon Eischeid (CIRES/NOAA CDC)
Robin Webb (NOAA CDC)

Observers:

Chris Miller (CCDD)
Mark Eakin (NGDC)